

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 to 46. (Canceled)

47. (Currently amended) An electric automobile comprising:

at least a fuel cell for power generation by supply of hydrogen and oxidizing agent,

a hydrogen generating device for generating a gas containing hydrogen to be supplied to the fuel cell, and

a motor driven by electricity generated by the fuel cell, wherein:

the hydrogen generating device generates gas containing hydrogen by decomposing ~~[[a]]~~ an organic compound-containing fuel ~~containing an organic compound~~, the hydrogen generating device comprising:

a proton conductive partition membrane,

a fuel electrode provided on one surface of the partition membrane, the fuel electrode directly generating the gas containing hydrogen,

means for supplying the ~~fuel containing the organic compound-containing fuel~~ and water to the fuel electrode, the organic compound-containing fuel being capable of producing a proton as a result of electrochemical oxidization which can pass through the proton conductive partition membrane,

an oxidizing electrode provided on the other surface of the partition membrane,

means for supplying the oxidizing agent to the oxidizing electrode, and

means for generating and collecting the gas containing hydrogen from the fuel electrode.

48. (Currently amended) An electric automobile comprising:

at least a fuel cell for power generation by supply of hydrogen and oxidizing agent,

a hydrogen generating device for generating a gas containing hydrogen to be supplied to the fuel cell, and

a motor driven by electricity generated by the fuel cell, wherein:

the hydrogen generating device generates gas containing hydrogen by decomposing [[a]] an organic compound-containing fuel ~~containing an organic compound~~, the hydrogen generating device comprising:

a proton conductive partition membrane,

a fuel electrode provided on one surface of the partition membrane, the fuel electrode directly generating the gas containing hydrogen,

means for supplying the ~~fuel containing the organic compound-~~containing fuel and water to the fuel electrode, the organic compound-containing fuel being capable of producing a proton as a result of electrochemical oxidization which can pass through the proton conductive partition membrane,

an oxidizing electrode provided on the other surface of the partition membrane,

means for supplying the oxidizing agent to the oxidizing electrode, and

means for generating and collecting the gas containing hydrogen from the fuel electrode,

wherein the hydrogen generating device is an open circuit having neither means for withdrawing electric energy to outside from a hydrogen generating cell constituting the hydrogen

generating device, nor means for providing electric energy from outside to the hydrogen generating cell.

49. (Currently amended, Withdrawn) The electric automobile as described in Claim 47, wherein [[the]] a hydrogen generating cell constituting [[in]] the hydrogen generating device has means for withdrawing electric energy to outside with the fuel electrode serving as a negative electrode and the oxidizing electrode as a positive electrode.

50. (Currently amended, Withdrawn) The electric automobile as described in Claim 47, wherein [[the]] a hydrogen generating cell constituting [[in]] the hydrogen generating device has means for providing electric energy from outside with the fuel electrode serving as cathode and the oxidizing electrode as anode.

51. (Previously presented) The electric automobile as described in Claim 47, wherein two or more of hydrogen generating devices selected from a group consisting of a hydrogen generating device, which is an open circuit having neither means for withdrawing electric energy to outside from a hydrogen generating cell, nor means for providing electric energy from outside to the hydrogen generating cell, a hydrogen generating device having means for withdrawing electric energy to outside with the fuel electrode of the hydrogen generating cell serving as a negative electrode and the oxidizing electrode of the cell as a positive electrode, and a hydrogen generating device having means for providing electric energy from outside with the fuel electrode of the hydrogen generating cell serving as cathode and the oxidizing electrode of the cell as anode are combined in use.

52. (Previously presented) The electric automobile as described in Claim 47, wherein voltage between the fuel electrode and the oxidizing electrode is 200 to 1000 mV in the hydrogen generating device.

53. (Previously presented) The electric automobile as described in Claim 48, wherein voltage between the fuel electrode and the oxidizing electrode is 300 to 800 mV in the hydrogen generating device.

54. (Withdrawn) The electric automobile as described in Claim 49, wherein voltage between the fuel electrode and the oxidizing electrode is 200 to 600 mV in the hydrogen generating device.

55. (Withdrawn) The electric automobile as described in Claim 49, wherein voltage between the fuel electrode and the oxidizing electrode and/or the evolution volume of hydrogen-containing gas are/is adjusted by varying the volume of electric energy withdrawn from the hydrogen generating device.

56. (Withdrawn) The electric automobile as described in Claim 50, wherein voltage between the fuel electrode and the oxidizing electrode is 300 to 1000 mV in the hydrogen generating device.

57. (Withdrawn) The electric automobile as described in Claim 50, wherein voltage between the fuel electrode and the oxidizing electrode and/or the evolution volume of hydrogen-containing gas are/is adjusted by varying the volume of electric energy provided in the hydrogen generating device.

58. (Currently amended) The electric automobile as described in Claim 47, wherein an evolution volume of hydrogen-

containing gas is adjusted by varying voltage between the fuel electrode and the oxidizing electrode in the hydrogen generating device.

59. (Currently amended) The electric automobile as described in Claim 47, wherein voltage between the fuel electrode and the oxidizing electrode and/or ~~[[the]]~~ an evolution volume of hydrogen-containing gas are/is adjusted by varying the supply volume of the oxidizing agent in the hydrogen generating device.

60. (Currently amended) The electric automobile as described in Claim 47, wherein voltage between the fuel electrode and the oxidizing electrode and/or ~~[[the]]~~ an evolution volume of hydrogen-containing gas are/is adjusted by varying ~~[[the]]~~ a concentration of the oxidizing agent in the hydrogen generating device.

61. (Currently amended) The electric automobile as described in Claim 47, wherein voltage between the fuel electrode and the oxidizing electrode and/or ~~[[the]]~~ an evolution volume of hydrogen-containing gas are/is adjusted by varying the supply volume of fuel containing an organic compound and water in the hydrogen generating device.

62. (Currently amended) The electric automobile as described in Claim 47, wherein voltage between the fuel electrode and the oxidizing electrode and/or ~~[[the]]~~ an evolution volume of hydrogen-containing gas are/is adjusted by varying the concentration of fuel containing an organic compound and water in the hydrogen generating device.

63. (Currently amended) The electric automobile as described in Claim 47, wherein ~~[[the]]~~ an operation temperature of the hydrogen generating device is not higher than 100°C.

64. (Currently amended) The electric automobile as described in Claim 63, wherein ~~[[the]]~~ an operation temperature is between 30 and 90°C.

65. (Previously presented) The electric automobile as described in Claim 47, wherein the organic compound supplied to the fuel electrode of the hydrogen generating device is one or two or more organic compounds selected from a group consisting of alcohol, aldehyde, carboxyl acid and ether.

66. (Previously presented) The electric automobile as described in Claim 65, wherein the alcohol is methanol.

67. (Previously presented) The electric automobile as described in Claim 47, wherein the oxidizing agent supplied to the oxidizing electrode of the hydrogen generating device is an oxygen-containing gas or oxygen.

68. (Previously presented) The electric automobile as described in Claim 67, wherein the oxidizing agent supplied to the oxidizing electrode of the hydrogen generating device is an exhaust air exhausted from the fuel cell or the hydrogen generating device.

69. (Previously presented) The electric automobile as described in Claim 47, wherein the oxidizing agent supplied to the oxidizing electrode of the hydrogen generating device is a liquid containing hydrogen peroxide solution.

70. (Previously presented) The electric automobile as described in Claim 47, wherein the partition membrane of the hydrogen generating device is a proton conducting solid electrolyte membrane.

71. (Previously presented) The electric automobile as described in Claim 70, wherein the proton conducting solid electrolyte membrane is a perfluorocarbon sulfonate-based solid electrolyte membrane.

72. (Previously presented) The electric automobile as described in Claim 47, wherein a catalyst of the fuel electrode of the hydrogen generating device is made of platinum-ruthenium alloy supported by carbon powder serving as a base.

73. (Previously presented) The electric automobile as described in Claim 47, wherein a catalyst of the oxidizing electrode of the hydrogen generating device is made of platinum supported by carbon powder serving as a base.

74. (Previously presented) The electric automobile as described in Claim 47, wherein means for circulating fuel containing an organic compound and water is provided at the hydrogen generating device.

75. (Previously presented) The electric automobile as described in Claim 47, wherein a carbon dioxide absorbing portion for absorbing carbon dioxide contained in the generated hydrogen-containing gas is provided at the hydrogen generating device.

76. (Previously presented) The electric automobile as described in Claim 47, wherein the hydrogen-containing gas generated from the hydrogen generating device is supplied to the fuel cell without being cooled.

77. (Previously presented) The electric automobile as described in Claim 47, wherein an insulating material for insulating a heat generated by the hydrogen generating device is not provided.